

catataccat gagatccca atgacataga atagatga tttttagga atgtagcaa R645
 ttgaggaaa tggtaggag ttatgaga ttatgaga ttatgaga ttatgaga R700
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<212> PRT

<213> Canis familiaris

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Leu Pro Gly Lys Leu Cys Thr Lys Gly Thr Val Gly Arg Ser Ser Met
 20 25 30

Ala Arg Cys Ser Leu Leu Gly Gly Asp Phe Ile Asn Thr Phe Asp Glu
 35 40 45

Ser Met Tyr Ser Phe Ala Gly Asp Cys Ser Tyr Leu Leu Ala Gly Asp
 50 55 60

Cys Gln Glu His Ser Ile Ser Leu Ile Gly Gly Phe Gln Asn Asp Lys
 65 70 75 80

Arg Val Ser Leu Ser Val Tyr Leu Gly Glu Phe Phe Asp Ile His Leu
 85 90 95

Phe Val Asn Gly Thr Met Leu Gln Gly Thr Gln Ser Ile Ser Met Pro
 100 105 110

Tyr Ala Ser Asn Gly Leu Tyr Leu Glu Ala Glu Ala Gly Tyr Tyr Lys
 115 120 125

Leu Ser Ser Glu Ala Tyr Gly Phe Val Ala Arg Ile Asp Gly Asn Gly
 130 135 140

Asn Ile His Val Leu Leu Ser Arg Arg Tyr Ile Asn Tyr Thr Tyr Gly
 145 150 155

Leu Tyr Gly Asn Ile Asn Ile Ile Ala Glu Arg Arg Ile Tyr Thr Thr
 160 165 170

His Gly Thr Leu Thr Ser Arg Ile Tyr Arg Ile Ala Asn Ser Thr Ala
 175 180 185

Leu Ser Ser Gly His His Arg Tyr Tyr Arg Thr Ser Ile Ile Ser Ser
 190 195 200

245

250

255

Tyr Val His Gly Met His Cys Pro Tyr Ala Val Leu Leu His Tyr Ala
262 265 267

Arg Ala Cys Ala Gln Gln Gly Ile Val Leu Tyr Gly Trp Thr Asp His
275 280 285

Ser Val Cys Arg Pro Ala Cys Pro Ala Gly Met Glu Tyr Lys Glu Cys
290 295 300

Val Ser Pro Cys Thr Arg Thr Cys His Ser Leu His Val Lys His Val
305 310 315 320

Cys Gln Glu Gln Cys Val Asp Gly Cys Ser Cys Pro Glu Gly Gln Leu
325 330 335

Leu Asp Glu Gly His Cys Val Gly Ser Ala Glu Cys Ser Cys Val His
340 345 350

Ala Gly Gln Arg Tyr Pro Pro Gly Ala Ser Leu Leu Gln Asp Cys His
355 360 365

Thr Cys Ile Cys Arg Asn Ser Leu Trp Ile Cys Ser Asn Glu Glu Cys
370 375 380

Pro Gly Glu Cys Leu Val Thr Gly Gln Ser His Phe Lys Ser Phe Asp
385 390 395 400

Asn Arg Tyr Phe Thr Phe Ser Gly Val Cys His Tyr Leu Leu Ala Gln
405 410 415

Asp Cys Gln Asp His Thr Phe Ser Val Val Ile Glu Thr Val Gln Cys
420 425 430

Ala Asp Asp Leu Asp Ala Val Cys Thr Arg Ser Val Thr Val Arg Leu
435 440 445

His Gly His His Arg Ser Leu Val Tyr Leu Tyr Asn Gly Arg Gly Val
450 455 460

Arg Met Asp Tyr Val Arg Ile Val Leu His Leu Leu Val Arg Leu
465 470 475

Arg Ile His His Thr Val Met Ala Ser Val Arg Leu Ser Tyr Gly His
480 485 490

Arg Leu His Met Arg Ser Arg Val Arg Arg Arg Leu Tyr Thr Leu
495 500

545	550	555	560
Asn Leu Gln Lys His His Arg Asp Trp Tyr Ser Leu Asn Pro Arg Gln	555	560	565
Ala Arg Phe Ala Glu Glu Ala Cys Ala Leu Leu Thr Ser Ser Lys Phe	565	570	575
Glu Pro Cys His Arg Ala Val Gly Pro Gln Pro Tyr Val Gln Asn Cys	580	585	590
Leu Tyr Asp Val Cys Ser Cys Ser Asp Gly Arg Asp Cys Leu Cys Ser	595	600	605
Ala Val Ala Asn Tyr Ala Ala Ala Val Ala Arg Arg Gly Val His Ile	610	615	620
Ala Trp Arg Glu Pro Gly Phe Cys Ala Leu Ser Cys Pro Gln Gly Gln	625	630	635
Val Tyr Leu Gln Cys Gly Thr Pro Cys Asn Met Thr Cys Leu Ser Leu	640	645	650
Ser Tyr Pro Glu Glu Asp Cys Asn Glu Val Cys Leu Glu Ser Cys Phe	655	660	665
Ser Pro Pro Gly Leu Tyr Leu Asp Glu Arg Gly Asp Cys Val Pro Lys	670	675	680
Ala Gln Cys Pro Cys Tyr Tyr Asp Gly Glu Ile Phe Gln Pro Glu Asp	685	690	695
Ile Phe Ser Asp His His Thr Met Cys Tyr Cys Glu Asp Gly Phe Met	700	705	710
His Cys Thr Thr Ser Gly Gly Leu Gly Ser Leu Leu Pro Asn Pro Val	715	720	725
Leu Ser Ser Trp Arg Tyr His Arg Ser Tyr Arg Ser Leu Ser Tyr Arg	730	735	740
Trp Trp Ser Val Asp Leu Val Tyr Trp Arg Arg Arg Trp Arg Arg Trp	745	750	755
Gly Leu His Tyr Ala Lys Thr Cys Gln Asn Tyr Asp Leu His Cys Met	760	765	770
Ser Ser Gly Trp Val Ser Gly Tyr Leu Tyr Trp Arg Gly Met Val Arg	775	780	785

850

855

860

Ala Thr Tyr Ser Ala Ile Gly Met Ala His Tyr Leu Thr Ile Asp Gly
865 875

Leu Lys Tyr Leu Phe Pro Gly Glu Cys Gln Tyr Val Leu Val Glu Asp
885 895

Tyr Cys Gly Ser Asn Pro Gly Thr Leu Arg Ile Leu Val Gly Asn Glu
905 915

Gly Cys Ser Tyr Pro Ser Val Lys Cys Lys Lys Arg Val Thr Ile Leu
925 935

Val Glu Gly Gly Glu Ile Glu Leu Phe Asp Gly Glu Val Asn Val Lys
940 950

Lys Pro Met Lys Asp Glu Thr His Phe Glu Val Val Glu Ser Gly Gln
965 975

Tyr Val Ile Leu Leu Leu Gly Lys Ala Leu Ser Val Val Trp Asp His
985 995

Arg Leu Ser Ile Ser Val Thr Leu Lys Arg Thr Tyr Gln Glu Gln Val
1005 1015

Cys Gly Leu Cys Gly Asn Phe Asp Gly Ile Gln Asn Asn Asp Phe Thr
1025 1035

Ser Ser Ser Leu Gln Ile Glu Glu Asp Pro Val Asp Phe Gly Asn Ser
1045 1055

Trp Lys Val Asn Pro Gln Cys Ala Asp Thr Lys Lys Val Pro Leu Asp
1065 1075

Ser Ser Pro Ala Val Cys His Asn Asn Ile Met Lys Gln Thr Met Val
1085 1095

Asp Ser Ser Tyr Arg Ile Leu Ile Ser Asp Ile Ile Ser Asp Tyr Asn
1105 1115

Asp Ser Val Asp Ser Ser Ile Ile Ser Asp Ile Tyr Ile Tyr Asp Ile
1125 1135

Tyr Ser Tyr Ala Ser Ile Gly Asp Tyr Thr Cys Phe Tyr Asp Thr Ile
1145 1155

Ala Ala Tyr Ala His Val Tyr Ala His His Gly Tyr Val Val Ala Thr
1165 1175

1155

1160

1165

Tys Val Glu Gly Tys His Ala His Tys Pro Pro Gly Lys Ile Leu Asp
1170 1175 1175 1175

Glu Leu Leu Glu Thr Cys Ile Asp Pro Glu Asp Cys Pro Val Cys Glu
1185 1190 1195 1200

Val Ala Gly Arg Arg Leu Ala Pro Gly Lys Lys Ile Ile Leu Asn Pro
1205 1210 1215

Ser Asp Pro Glu His Cys Glu Ile Cys Asn Cys Asp Gly Val Asn Ile
1220 1225 1230

Thr Cys Lys Ala Cys Arg Glu Pro Gly Ser Val Val Val Pro Pro Thr
1235 1240 1245

Asp Gly Pro Ile Gly Ser Thr Thr Ser Tyr Val Glu Asp Thr Ser Glu
1250 1255 1260

Pro Pro Leu His Asp Phe His Cys Ser Arg Leu Leu Asp Leu Val Phe
1265 1270 1275 1280

Leu Leu Asp Gly Ser Ser Lys Leu Ser Glu Asp Glu Phe Glu Val Leu
1285 1290 1295

Lys Val Phe Val Val Gly Met Met Glu His Leu His Ile Ser Gln Lys
1300 1305 1310

Arg Ile Arg Val Ala Val Val Glu Tyr His Asp Gly Ser His Ala Tyr
1315 1320 1325

Ile Glu Leu Lys Asp Arg Lys Arg Pro Ser Glu Leu Arg Arg Ile Thr
1330 1335 1340

Ser Glu Val Lys Tyr Ala Gly Ser Glu Val Ala Ser Thr Ser Glu Val
1345 1350 1355 1360

Leu Lys Tyr Thr Leu Ile Glu Ile Ile Gly Lys Ile Arg Arg Ile Glu
1365 1370 1375

Arg Ser Arg Ile Ala Ile Ile Ile Met Ala Ser Glu Glu Ile Ser Arg
1380 1385 1390

Leu Ala Arg Asp Leu Val Arg Tyr Val Glu Gly Leu Lys Lys Lys Lys
1395 1400 1405

Val Ile Val Ile Ile Val Gly Ile Gly Ile His Ala Ser Leu Lys Glu
1410 1415 1420

1460

1465

1470

Met Ala Gln Val Thr Val Gly Ser Glu Leu Leu Gly Val Ser Ser Pro
1475 1480 1485

Gly Pro Lys Arg Asn Ser Met Val Leu Asp Val Val Phe Val Leu Glu
1490 1495 1500

Gly Ser Asp Lys Ile Gly Glu Ala Asn Phe Asn Lys Ser Arg Glu Phe
1505 1510 1515 1520

Met Glu Glu Val Ile Gln Arg Met Asp Val Gly Gln Asp Arg Ile His
1525 1530 1535

Val Thr Val Leu Gln Tyr Ser Tyr Met Val Thr Val Glu Tyr Thr Phe
1540 1545 1550

Ser Glu Ala Gln Ser Lys Gly Glu Val Leu Gln Gln Val Arg Asp Ile
1555 1560 1565

Arg Tyr Arg Gly Gly Asn Arg Thr Asn Thr Gly Leu Ala Leu Gln Tyr
1570 1575 1580

Leu Ser Glu His Ser Phe Ser Val Ser Gln Gly Asp Arg Glu Gln Val
1585 1590 1595 1600

Pro Asn Leu Val Tyr Met Val Thr Gly Asn Pro Ala Ser Asp Glu Ile
1605 1610 1615

Lys Arg Met Pro Gly Asp Ile Gln Val Val Pro Ile Gly Val Gly Pro
1620 1625 1630

His Ala Asn Val Gln Gln Leu Glu Lys Ile Gly Trp Pro Asn Ala Pro
1635 1640 1645

Ile Leu Ile His Asp Phe Glu Met Leu Pro Arg Glu Ala Pro Asp Leu
1650 1655 1660

Val Leu His Arg Tyr Tyr Ser Gly His Gly Leu His Ile His Thr Leu
1665 1670 1675

Arg His His His Arg Tyr Ser His His Ile Asp Val Thr Leu Leu Leu
1675 1680 1685

Arg Gly Ser Ser Ser Ile His Ala Ser Tyr Ile Asp His Met Lys Ser
1685 1690 1695

Phe Thr Lys Ala His Thr Ser Arg Ala Asn Ile Gly His Arg Ile Thr
1700 1705 1710

1765

1770

1775

Ala Val Arg Tyr Val Thr Ser Glu Val His Gly Ala Arg Pro Gly Ala
1780 1785 1785

Ser Lys Ala Val Val Ile Leu Val Thr Asp Val Ser Val Asp Ser Val
1790 1800 1805

Asp Ala Ala Ala Glu Ala Ala Arg Ser Asn Arg Val Thr Val Ile Pro
1810 1815 1820

Ile Gly Ile Gly Asp Arg Tyr Ser Glu Ala Gln Leu Ser Ser Leu Ala
1825 1830 1835 1840

Gly Pro Lys Ala Gly Ser Asn Met Val Arg Leu Gln Arg Ile Glu Asp
1845 1850 1855

Leu Pro Thr Val Ala Thr Leu Gly Asn Ser Phe Phe His Lys Leu Cys
1860 1865 1870

Ser Gly Phe Asp Arg Val Cys Val Asp Glu Asp Gly Asn Glu Lys Arg
1875 1880 1885

Pro Gly Asp Val Trp Thr Leu Pro Asp Gln Cys His Thr Val Thr Cys
1890 1895 1900

Leu Pro Asp Gly Gln Thr Leu Leu Lys Ser His Arg Val Asn Cys Asp
1905 1910 1915 1920

Arg Gly Pro Arg Pro Ser Cys Pro Asn Gly Gln Pro Pro Leu Arg Val
1925 1930 1935

Glu Glu Thr Cys Gly Cys Arg Trp Thr Cys Pro Cys Val Cys Met Gly
1940 1945 1950

Ser Ser Thr Arg His Ile Val Thr Phe Asp Gly Gln Asn Phe Lys Leu
1955 1960 1965

Met Gly Ser Tyr Ser Tyr Val Leu Ile Ser Asn Lys His Ser Arg Leu
1970 1975 1980

Val Val Ile Ser Asn Asn Gly Asn Tyr Ser Ile Gly Ala Lys Val Ser
1985 1990 1995

Tyr Met Lys Ser Ile Gln Val Lys His Arg Gly Leu Ser Val Glu Leu
2000 2005 2010

His Ser Arg Met His Met Ser Val Asn Gly Asn Leu Val Ser Ile Pro
2015 2020 2025

2065	2070	2075	2080
Thr Tyr Gly Leu Lys Gly Ile Lys Arg Glu Asn Gly Ala Asp Asp Ile			
2065	2070	2075	2080
Ile Leu Arg Asp Gly Thr Val Thr Thr Asp Trp Lys Ala Leu Ile Gln			
2085	2090	2095	2100
Glu Trp Thr Val Ala Gln Leu Gly Lys Thr Ser Gln Pro Val His Glu			
2105	2110	2115	2120
Glu Gln Cys Pro Val Ser Glu Phe Phe His Cys Glu Val Leu Leu Ser			
2130	2135	2140	
Glu Leu Phe Ala Glu Cys His Lys Val Leu Ala Pro Ala Thr Phe Tyr			
2145	2150	2155	2160
Ala Met Cys Gln Pro Asp Ser Cys His Pro Lys Lys Val Cys Glu Ala			
2165	2170	2175	
Ile Ala Leu Tyr Ala His Leu Cys Arg Thr Lys Gly Val Cys Val Asp			
2180	2185	2190	
Trp Arg Arg Ala Asn Phe Cys Ala Met Ser Cys Pro Pro Ser Leu Val			
2195	2200	2205	
Tyr Asn His Cys Glu His Gly Cys Pro Arg Leu Cys Glu Gly Asn Thr			
2210	2215	2220	
Ser Ser Cys Gly Asp Gln Pro Ser Glu Gly Cys Phe Cys Pro Pro Asn			
2225	2230	2235	2240
Gln Val Met Leu Glu Gly Ser Cys Val Pro Glu Glu Ala Cys Thr Gln			
2245	2250	2255	
Cys Ile Ser Glu Asp Gly Val Arg His Gln Phe Leu Glu Thr Trp Val			
2260	2265	2270	
His Ala His Val His Tyr His Leu Tyr Ile Tyr Ile Asp Gly Arg Lys			
2275	2280	2285	2290
Val Asn Tyr Thr Ser His His Tyr His Ile Ala Lys Ala His Thr Tyr			
2295	2300	2305	2310
Gly Pro Tyr His Val Ala Arg Leu Arg His Asn Ala Val His Cys Tyr			
2315	2320	2325	2330
His Glu Tyr Glu Tyr Val Tyr Arg Leu Val Arg Tyr Arg Leu His His			
2335	2340	2345	2350

2370

2375

2380

Lys Thr Gln Cys Cys Asp Glu Tyr His Cys Ala Cys Asn Cys Val Asn
 2385 2390 2395 2400

Ser Thr Val Ser Cys Pro Leu Gly Tyr Leu Ala Ser Ala Val Thr Asn
 2405 2410 2415

Asp Cys Gly Cys Thr Thr Thr Thr Cys Phe Pro Asp Lys Val Cys Val
 2420 2425 2430

His Arg Gly Thr Ile Tyr Pro Val Gly Gln Phe Trp Glu Glu Ala Cys
 2435 2440 2445

Asp Val Cys Thr Cys Thr Asp Leu Glu Asp Ser Val Met Gly Leu Arg
 2450 2455 2460

Val Ala Gln Cys Ser Gln Lys Pro Cys Glu Asp Asn Cys Leu Ser Gly
 2465 2470 2475 2480

Phe Thr Tyr Val Leu His Glu Gly Glu Cys Cys Gly Arg Cys Leu Pro
 2485 2490 2495

Ser Ala Cys Glu Val Val Thr Gly Ser Pro Arg Gly Asp Ala Gln Ser
 2500 2505 2510

His Trp Lys Asn Val Gly Ser His Trp Ala Ser Pro Asp Asn Pro Cys
 2515 2520 2525

Leu Ile Asn Glu Cys Val Arg Val Lys Glu Glu Val Phe Val Gln Gln
 2530 2535 2540

Arg Asn Val Ser Cys Pro Gln Leu Asn Val Pro Thr Cys Pro Thr Gly
 2545 2550 2555 2560

Phe Gln Leu Ser Cys Lys Thr Ser Glu Cys Cys Pro Thr Cys His Cys
 2565 2570 2575

His Ile Leu Ala Cys Thr Leu Asn Gly Thr Ile Thr Gly Ile Gly
 2580 2585 2590 2595

Arg Ser Ile Met Ile Arg Val Cys Thr Thr Thr Thr Arg Tyr Ile Val Ile
 2595 2600 2605 2610

Val Gly Val Ile Ser Gly Ile Lys Leu Glu Gly Arg Lys Thr Thr Cys
 2615 2620 2625 2630

His Ala Tyr Ile Ile Gly Tyr Tyr Ala Glu Lys Asn Glu Gly Ile Tyr
 2635 2640 2645 2650

453

Ala Ile Glu Cys Arg Cys Ser Pro Arg Lys Cys Ser Lys
2805 2810

<213> Canis familiaris

the 1990s, the number of people in the world who are illiterate has increased from 1.2 billion to 1.5 billion. The number of illiterate people in the world is projected to reach 1.7 billion by the year 2015. The number of illiterate people in the world is projected to reach 1.7 billion by the year 2015.

[illegible]

4

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<210> 8

<211> 60

<212> DNA

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<400> 8

atggagatg ggggtggggt tgaaggtg agggcatg aggaatga tgaagaaga 60

<210> 9

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<211> 24

<212> DNA

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atgacaaa agagtgaac ggta 24

<210> 12

<211> 24

<212> DNA

<213> Canis familiaris

<400> 12

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16

<210> 21

<211> 21*

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<213> Canis familiaris

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ctgggtggacc ctgagccttt tctcgccttg tctgaaagga ctctgtgcac ctgtgtccag 120
gggatggagt gcccttgctg ggtcctcctg gactacgccc gggcctgtgc ccagcaggga 180
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Val Leu Trp Glu Gln Cys Gln Leu Leu Lys Ser Ala Ser Val Phe Ala
1 5 10 15

Arg Cys His Pro Leu Val Asp Pro Gln Pro Phe Val Ala Leu Cys Glu
20 25 30

Arg Thr Leu Cys Thr Cys Val Gln Gly Met His Cys Pro Cys Ala Val
35 40 45

Leu Leu Glu Tyr Ala Arg Ala Cys Ala Gln Gln Gly Ile Val Leu Tyr
50 55 60

Lys His His Arg His Arg Val Tyr Arg

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<212> DNA

<213> Canis familiaris

<400> 23

gagccttttgg cggcc

